CAN EDUCATIONAL AND ECONOMIC EMPOWERMENT BE DANGEROUS? PATTERNS OF INTIMATE PARTNER VIOLENCE AMONG WOMEN IN RWANDA

by

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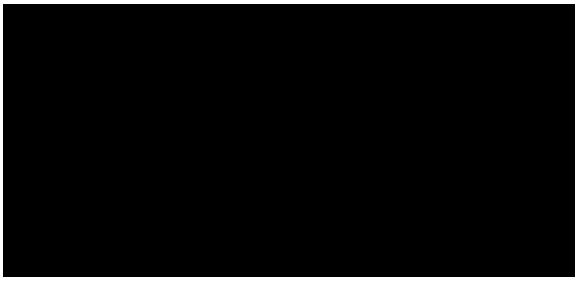

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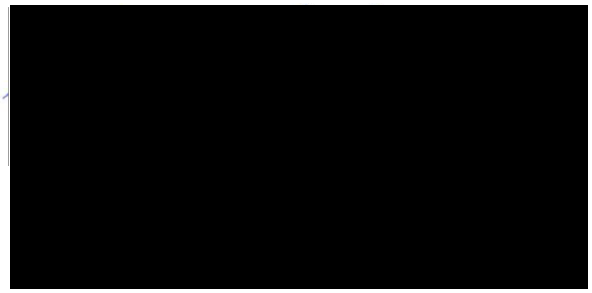

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ABSTRACT

Objectives: This study sought to examine if women in Rwanda who exceed their partner's educational achievements and earnings face an increased risk of intimate partner violence (IPV).

Methods: The study used secondary data from the 2010 Rwanda Demographic and Health Survey of women aged 15-49 years. Ever-partnered women who responded to the Domestic Violence Module (n=3,476) were selected for analysis. Multivariate logistic regression was used to determine if women who were more educated than their partner experienced higher odds of IPV in the preceding 12 months of the survey. Multivariate logistic regression was also conducted among employed women who earned cash (n=1830) to determine if earning more than your partner was associated with increased odds of experiencing IPV in the preceding 12 months.

Results: The odds of IPV were higher among women who were more educated than their partner compared to women who were less educated (OR=1.30, 95% CI=1.10-1.54), and higher among women who earned more than their partner compared to women who earned less (OR=1.48, 95% CI=1.05-2.09). Another factor associated with higher odds of IPV was living with a partner. Employment without cash earnings, younger (15-24 years) and older (≥35 years) age and urban residence were factors protective against IPV.

Conclusions: Being more educated and earning more than your partner are risk factors for IPV among women in Rwanda. To prevent an unintended backlash arising from improvements in women's status, programs that aim to increase educational attainment among girls and improve economic opportunities for women must also engage boys and men to foster gender-equitable attitudes, norms and practices.

BACKGROUND

Intimate partner violence (IPV) is a public health and human rights problem in Rwanda, sub-Saharan Africa (SSA), and globally. The World Health Organization (WHO) defines intimate partner violence as "behaviour within an intimate relationship that causes physical, sexual, or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours".[1, p11] IPV is linked with a number of adverse health outcomes among women such as depression, post-traumatic stress disorder (PTSD), unplanned pregnancy, and sexually transmitted infections (STIs), including HIV/AIDS.[2] Identifying factors that put women at risk of experiencing IPV is therefore crucial to addressing women's health and development.

In Rwanda, IPV is widespread. Based on the 2010 Demographic and Health Survey (DHS), more than half of all women aged 15-49 (56.4%) had experienced physical and/or sexual violence by a husband or partner.[3] This places the prevalence of IPV in Rwanda considerably higher than the WHO estimated 36.6% for the Africa region, but lower than the estimated 65.6% for central sub-Saharan Africa (SSA), which is the highest prevalence among all regions globally.[2] While these regional and sub-regional estimates are now available, the WHO notes that central SSA is among the regions with the least available data on IPV.[2] Studies specific to IPV in Rwanda are also very limited.

Of the available studies from the SSA region, certain attitudes and behaviors are found to be most consistently associated with IPV experience among women and perpetration by men. These include accepting attitudes pertaining to wife beating among women[4-8] and men,[9] alcohol use among men[7,8,10-13] and women,[8,10,14] and men[10,11,15] and women[8,15,16]

having multiple sexual partners. Additionally, a number of studies, including from Rwanda,[17] have found that experiencing IPV is associated with positive HIV status among women.[5,18,19]

Gender power imbalances are thought to underlie women's vulnerability to IPV and several studies from SSA highlight the role of male control in predicting IPV.[20] Aspects of male-control such as insisting on knowing about your partner's whereabouts, limiting contact with her family, and accusing her of unfaithfulness, have been found to be highly associated with IPV among women.[4,12,21] Likewise, several studies have found that women's autonomy in decision-making on issues such as one's own healthcare and household expenditure is protective against IPV.[4,6,8,22]

Poverty-related stress is also considered a key contributor to IPV.[23] Men who have fewer resources to reduce stress may be more likely to perpetrate IPV,[23] and women may have a greater tolerance for violence if they have limited resources and alternatives.[24,25] Evidence on the association between socio-economic status (SES) and IPV in the SSA region, though, is mixed. Higher education among women was shown to be protective against physical[5,6,19,20,22,26,27] and sexual violence.[5,19] Mandal and Hindin[12] also found an inverse relationship between partner/husband's education level and women's experience of physical IPV in Malawi. However, other aspects of SES such as employment, occupation and income do not point to a clear direction of association. A multi-country study of household wealth and IPV in SSA found that poor household wealth was associated with higher odds of IPV in only two of six countries.[28] Okenwa et al.[6] found that women in Zambia engaging in higher income generating work were more exposed to physical IPV compared to women engaging in agricultural work or not working. Adudans

et al.[16] found that women with a history of experiencing forced sex were of higher economic status than other groups.

Choi and Ting[25] suggest that spousal violence is shaped by the interaction between male-provider and male-dominance norms with the actual distributions of resources and power in relationships. Therefore, while women who are economically dependent on their partner may be vulnerable to violence, women who hold a higher status than their partner may also face an increased risk of violence by threatening gender norms of male superiority. Studies in the United States have found a heightened risk of IPV among couples where women's earnings and educational achievements exceeded those of their male partners,[29-31] but few studies from the SSA region have looked at this type of relationship inequality. In Lawoko et al.'s study of social status and IPV in Kenya, having a higher occupational status than your spouse increased the odds of IPV.[22] Antai[4] found that earning more than your spouse increased the odds of IPV among women in Nigeria. While both studies also looked at partner differentials in educational attainment, the association between exceeding a partner's educational status and IPV did not reach statistical significance in these studies and elsewhere.[20]

On the whole, there has been limited exploration of the association between relationship inequality, in areas of education and income, and IPV in the SSA context. To our knowledge, no study has examined such factors on IPV in Rwanda. This study is therefore concerned with exploring two hypotheses in Rwanda: (1) women who are more educated than their partner will have increased odds of experiencing IPV; and (2) women earning more cash than their partner will have increased odds of experiencing IPV.

Country Context

Rwanda is a landlocked country situated in central SSA bordered by Uganda, Tanzania, the Democratic Republic of the Congo and Burundi, with a population of approximately 10.5 million, based on the most recent census.[32] The 1994 genocide in Rwanda resulted in the loss of over 800,000 lives, most of them ethnic Tutsis.[33] During this time, sexual violence against women was used as a deliberate tactic of war. The United Nations estimates that 250,000 women and girls were raped during this period, leading to thousands of pregnancies.[33] It is also regarded as at least partly responsible for the spread of HIV infection among Rwandan women**.**[12] The psychological impact on rape survivors in this setting is severe, characterized by feelings of shame, isolation and intense social stigma, particularly from their own families and communities.[33] It is important to note that the use of sexual violence in armed conflict is known to further entrench pre-existing patterns of male-dominance and the acceptance of violence among women.[34]

METHODS

Data

This study used data from the 2010-2011 Rwanda DHS, collected between September 2010 and March 2011. The survey includes a nationally representative sample of 13,671 women aged 15–49 from 12,540 surveyed households. Multistage sampling was used to first select a random sample of enumeration areas, and then systematically select a random sample of households in each enumeration area. All eligible women were asked to be interviewed; however, in accordance with the WHO's ethical and safety recommendations for research on domestic violence, only one randomly selected woman per household was asked questions on IPV. A total of 5,008 women responded to the

domestic violence questions. Of these women, only those who were ever married or ever in-union were asked questions on IPV. This included women currently married, divorced, separated or widowed as well as women currently or formerly living with a partner. Therefore, the sample was restricted to 3,476 ever-partnered women. Women with missing or unknown information about education, partner's education, IPV and covariates of interest were excluded. The final sample size was 3,402.

A second sample of 1,830 ever partnered women was selected for a sub-analysis to focus on income. Only currently-partnered women who had worked in the last 12 months and earned cash were included. Women with missing or unknown information about earning relative to partner's earning, IPV and covariates of interest were excluded. Women who reported that their partner did not earn cash were also excluded. The final sample size for the analysis was 1,747.

Measures of IPV

The outcome variable of interest is recent physical and/or sexual violence, captured in the survey by a series of questions that are based on a shortened version of the Modified Conflict Tactics Scale.[3, p239] IPV was measured by a woman's report in the last 12 months that she experienced any of the following acts by a current or former husband or partner: being (i) pushed, shaken, or having had something thrown at her; (ii) slapped; (iii) punched with a fist or hit with something harmful; (iv) kicked or dragged; (v) strangled or burnt; (vi) threatened with a knife, gun or other weapon; (vii) twisted by the arm or having hair pulled; (viii) forced into unwanted sex; and (ix) forced to perform any sexual acts she did not want to. Respondents who answered "yes" to any of these questions were

classified as having experienced physical and/or sexual IPV; respondents who answered "no" to all acts were classified as not having experienced IPV.

Measures of partner status inequality

Measures of partner status inequality were based on (a) the woman's level of education relative to her partner's level of education; and (b) her earning level relative to her partner's earning level. Relative education was constructed using continuous variables for the woman's education and her partner's education. Women with fewer years of education compared to their partner were classified "less educated than partner". Women who had the same number of years of education as their partner were categorized "as educated as partner". Women who had more years of education relative to their partner were categorized "more educated than partner". Currently partnered women who had worked in the preceding 12 months and earned cash were asked "Would you say that the money that you earn is more than what your husband/partner earns, less than what he earns, or about the same?" Based on this variable, relative earning was categorized into "less than partner", "about the same" and "more than partner".

Factors were controlled for based on their association with IPV in previous studies. Education level was grouped into "no education", "primary" and "secondary or higher". Age was grouped into "15-24", "25-34" and "≥35". Marital status was categorized into "married" and "living with partner". Wealth was categorized into "poor", "middle" and "rich", and type of place of residence was categorized into "rural" and "urban". To distinguish paid work from unpaid work and earning in kind, employment in the preceding 12 months was constructed with the categories "not working", "not paid cash" and "paid cash".

Analysis

Both analyses were conducted using bivariate and multivariate logistic regression to examine (i) whether or not relative education is associated with physical and/or sexual IPV; and (ii) whether or not relative earning is associated with physical and/or sexual IPV. Results are presented with odds ratios (OR) and 95% confidence intervals (CI). In the first analysis examining relative education, factors adjusted for were woman's education level, age, marital status, paid employment, wealth and type of residence. For the sub-analysis among women who were employed and earned cash, education level, age, marital status, wealth and type of residence were adjusted for. All analyses were performed using Stata version 13.1. This study is based on analysis of secondary data that contain no personal identifiers. It was reviewed and considered exempt from human subject research by the University of North Carolina at Chapel Hill Institutional Review Board.

RESULTS

Characteristics of sample

More than a third of the women reported being more educated than their partner and approximately a fifth reported being as educated as their partner. Approximately 70% had primary education and less than 10% had secondary or higher education. Women between ages 25-34 years made up nearly half the sample. The majority of women (64%) were employed and earned cash and about a quarter were employed but were either not paid or earned only in-kind; only 10% of women were not employed. Women currently or formerly living with a partner made up 30% of the sample; the majority reported being currently or formerly married. Over 80% of women resided in rural areas.

Prevalence of recent physical and/or sexual IPV

Approximately 45% of ever-partnered women reported physical and/or sexual violence in the preceding 12 months. This is largely driven by the prevalence of physical violence, which was reported by nearly 45% of women, while 14% percent of women reported experiencing sexual violence only.

Prevalence of IPV by relative education and selected characteristics

Table 1 presents the distribution of physical and/or sexual violence by selected characteristics. Prevalence of IPV was highest among women who were more educated than their partner compared to women who were less educated or who had the same number of years of education. Intimate partner violence was higher among women with primary education compared to women with secondary or higher education, and also when compared to women with no education. As for age, prevalence of IPV was highest among women aged 25-34 compared to younger and older groups. A lower proportion of married women reported IPV compared to women who were living with a partner. Urban-rural differences are also observed; IPV was lower among women residing in urban areas compared to rural areas.

Table 1: Selected Characteristics of Ever-Partnered Women Aged 15-49 and Experience of Physical and/or Sexual IPV in the Last 12 Months

	n	% of IPV
Relative education		
Less educated than partner	1,480	42.7
As educated as partner	703	42.7
More educated than partner	1,219	50.1
Education		
No education	683	41.4
Primary education	2,399	47.1
Secondary or higher	320	40.3
Age		
15-24	528	43.2
25-34	1,574	49.4
≥35	1,300	41.3
Paid employment		
Not working	349	45.0
Not paid cash	883	42.5
Paid cash	2,170	46.6
Marital status		
Married	2,426	42.3
Living with partner	976	52.9
Wealth		
Poor	1,455	46.9
Middle	683	48.9
Rich	1,264	41.6
Place of residence		
Rural	2,923	46.7
Urban	479	37.0
Total	**3,204**	**45.4**

Relative education and selected characteristics associated with IPV

Table 2 presents the results of bivariate and multivariate logistic regression of relative education, selected characteristics and physical and/or sexual IPV in the last 12 months. Based on bivariate regression of relative education and IPV, women who were more educated than their partner had 1.35 times the odds of experiencing IPV than women who were less educated (95% CI=1.16-1.57). While bivariate analysis showed that education was associated with IPV, it was not clearly protective. Women with secondary or higher education had lower odds of experiencing IPV compared to women with primary education (OR=0.76, 95% CI=0.60-0.96), however women with no education also had lower odds of experiencing IPV compared to women with primary education (OR= 0.79, 95% CI= 0.67-0.94). Age also appeared to have a non-linear relationship with IPV. Women in the 15-24 and ≥35 age groups were less likely to experience IPV compared to women aged 25-34, though the protective effect was strongest among women aged ≥35 years (OR=0.77, 95% CI=0.66-0.90). Other protective factors based on bivariate analysis were greater household wealth and urban residence. Compared to women belonging to poor households, women from rich households were less likely to experience IPV (OR=0.81, 95% CI= 0.69-0.94). Women residing in urban areas were also less likely to experience IPV compared to women living in rural areas (OR=0.67, 95% CI=0.55-0.82). Additionally, women who were employed but were unpaid or earned in kind had slightly lower odds of experiencing IPV compared to women who earned cash (OR=0.85, 95% CI=0.72-0.99). As for risk factors, women living with a partner were more likely to experience IPV compared to married women (OR=1.53, 95% CI=1.32-1.77).

After controlling for level of education, age, paid employment, marital status, wealth and place of residence, the odds of experiencing IPV remained higher for women who were more educated than their partner compared to women who were less educated (OR=1.3, 95% CI 1.10-1.54). Adjusted odds ratios for education and household wealth showed that these factors were no longer associated with IPV after controlling for the other covariates. However, age did remain significantly associated with IPV, with women in the 15-24 and ≥ 35 age groups much less likely to experience IPV compared to women aged 25-34. The protective effect of urban residence also remained after controlling for other factors. Finally, living with a partner remained a risk factor; these women experienced 1.62 times the odds of IPV compared to married women (95% CI= 1.38-1.91).

Table 2: Crude and Adjusted Odds Ratios and 95% Confidence Intervals for Relative Education, Selected Characteristics and Physical and/or Sexual IPV in the Last 12 Months among Ever-Partnered Women Aged 15-49

Variable	Physical and/or sexual IPV	
	Crude OR (CI)	**AOR (CI)**
Relative education		
Less educated than partner (ref)	1.0	1.0
As educated as partner	1.00 (0.83-1.20)	1.01 (0.84-1.21)
More educated than partner	1.35 (1.16-1.57)***	1.30 (1.10-1.54)**
Education		
No education	0.79 (0.67-0.94)**	0.86 (0.71-1.05)
Primary (ref)	1.0	1.0
Secondary or higher	0.76 (0.60-0.96)*	0.91 (0.70-1.18)
Age		
15-24	0.78 (0.64-0.95)*	0.67 (0.54-0.82)***
25-34 (ref)	1.0	1.0
≥35	0.72 (0.62-0.84)***	0.77 (0.66-0.90)***

Contd.

Table 2: Crude and Adjusted Odds Ratios and 95% Confidence Intervals for Relative Education, Selected Characteristics and Physical and/or Sexual IPV in the Last 12 Months among Ever-Partnered Women Aged 15-49

Variable	Physical and/or sexual IPV	
	Crude OR (CI)	Adjusted OR (CI)
Paid employment		
Not working	0.94 (0.75-1.18)	1.02 (0.81-1.30)
Not paid cash	0.85 (0.72-0.99)*	0.81 (0.69-0.95)*
Paid cash (ref)	1.0	1.0
Marital status		
Married	1.0	1.0
Living with partner (ref)	1.53 (1.32-1.77)***	1.62 (1.38-1.91)***
Wealth		
Poor (ref)	1.0	
Middle	1.08 (0.90-1.30)	1.08 (0.90-1.30)
Rich	0.81 (0.69-0.94)**	0.88 (0.74-1.04)
Place of residence		
Rural (ref)	1.0	1.0
Urban	0.67 (0.55-0.82)***	0.67 (0.53-0.83)***

*p ≤ .05. **p ≤ .01. ***p ≤ .001.

Prevalence of IPV by Relative Earning and Selected Characteristics

The overall prevalence of IPV was higher among currently partnered women who earn cash compared to ever-partnered women (51% versus 45%). Among this subset of women, IPV was highest among women who earned more than their partner compared to women who earned less or about the same. The distribution of IPV by other characteristics followed similar patterns to those seen in the larger ever-partnered sample, though prevalence by each characteristic was higher.

Table 3: Selected Characteristics of Currently-Partnered Women Employed for Cash, Aged 15-49 and Experience of Physical IPV and/or Sexual in the Last 12 Months

	n	% of IPV
Relative earning		
Less than partner	1,223	50.4
About the same	365	48.5
More than partner	159	60.4
Education		
No education	317	53.0
Primary education	1,268	51.4
Secondary or higher	162	42.6
Age		
15-24	281	44.5
25-34	899	53.2
≥35	576	50.4
Marital status		
Married	1,185	48.8
Living with partner	562	55.3
Wealth		
Poor	690	52.9
Middle	366	55.5
Rich	691	46.5
Place of residence		
Urban	219	46.6
Rural	1,528	51.5
Total	**1,747**	**50.9**

Relative Earning and Selected Characteristics Associated with IPV

Results of the bivariate and multivariate analyses conducted among currently-partnered employed women who earned cash is depicted in Table 4. Relative earning is associated with experiencing IPV based on both crude and adjusted odds ratios. After controlling for education, age, marital status, household wealth and place of residence, women who earned more than their partner had 1.5 times the odds of experiencing IPV compared to

women who earned less than their partner (OR=1.48; 95% CI=1.05-2.09). As for covariates of interest, living with a partner was associated with 1.43 times the odds of IPV compared to being married (95% CI=1.15-1.77). Young age had protective effects after controlling for other factors; women aged between15-24 had lower odds of IPV compared to women aged 25-34 (OR=0.62, 95% CI=0.47-0.82). Unlike the analysis among ever-partnered women, place of residence was not an associated factor in this model based on results of both crude and adjusted odds ratios.

Table 4: Crude and Adjusted Odds Ratios and 95% Confidence Intervals for Relative Earning, Selected Characteristics and Physical and/or Sexual IPV in the Last 12 Months among Currently Partnered Women Aged 15-49

Variable	Physical and/or sexual IPV	
	Crude OR (CI)	**Adjusted OR (CI)**
Relative earning		
Less than partner (ref)	1.0	1.0
About the same	0.93 (0.73-1.17)	0.92 (0.73-1.17)
More than him	1.50 (1.07-2.10)*	1.48 (1.05-2.09)*
Education		
No education	1.05 (0.82-1.34)	0.96 (0.75-1.24)
Primary (ref)	1.0	1.0
Secondary or higher	0.71 (0.51.98)*	0.77 (0.54-1.09)
Age		
15-24	0.72 (0.55-0.95)*	0.62 (0.47-0.82)***
25-34 (ref)	1.0	1.0
≥35	0.90 (0.73-1.10)	0.95 (0.77-1.18)
Marital status		
Married	1.0	1.0
Living with partner (ref)	1.34 (1.09-1.63)**	1.43 (1.15-1.77)***

Contd.

Table 4: Crude and Adjusted Odds Ratios and 95% Confidence Intervals for Relative Earning, Selected Characteristics and Physical and/or Sexual IPV in the Last 12 Months among Currently Partnered Women Aged 15-49

Variable	Physical and/or sexual IPV	
	Crude OR (CI)	Adjusted OR (CI)
Wealth		
Poor (ref)	1.0	1.0
Middle	1.11 (0.86-1.4)	1.07 (0.82-1.38)
Rich	0.80 (0.65-0.98)*	0.82 (0.65-1.02)
Place of residence		
Rural (ref)	1.0	1.0
Urban	0.80 (0.61-1.06)	0.91 (0.67-1.23)

*p ≤ .05. **p ≤ .01. ***p ≤ .001.

Discussion

The overall prevalence of IPV in this sample of women in Rwanda is high, as is the prevalence in the SSA region. Patterns of IPV also do not clearly correlate with women's education or employment. The protective effect of primary education seen in other studies, including from Rwanda,[11] was not reflected here. Though the prevalence of IPV was lowest among women with a secondary or higher education, it was highest among women with a primary education, even compared to women with no education. This concurs with findings from South Africa that indicate that women's education had protective effects at the lowest and highest levels.[23] Jewkes[23] suggests that in periods of transition in gender relations, some education may empower women enough to challenge gender roles, but "such empowerment carries an increased risk of violence until a high enough level is reached for protective effects to predominate." [p6] Being more educated than your partner was associated with a higher likelihood of experiencing violence,

placing the 34% of women who were more educated than their partner compared to women who were less educated, at an increased risk of IPV. These findings suggest that looking at relative educational attainment, rather than education alone, captures an important risk factor for IPV among women in Rwanda.

The majority of women in the sample were currently employed and earned cash, and the prevalence of violence was higher in this group compared to women who were not working and those who were not paid or earned in kind. Interestingly, the odds of IPV were lowest among women who were employed but not paid or earned only in kind, compared to those who earned in cash. Though self-employment in the agricultural sector comprised most paid and unpaid work in this sample, some women who were not paid or paid only in kind also engaged in manual unskilled work. It is possible that earning in cash prompts women to seek inclusion in financial decision-making,[23] crossing into a traditionally male-dominated role. Disaggregation of data by type of earning may therefore be important in identifying employment related risk factors for IPV. Crucially, among currently partnered women who earned cash, women who earned more than their partner were more likely to experience IPV compared to women who earned less. This may be a response by men who perceive themselves as failing to fulfill a male provider norm, and IPV may be a mechanism to control the women who challenge it.[25]

A number of other factors appear to be associated with IPV in Rwanda. Though global evidence shows that young age is a risk factor for IPV among women,[1] these results indicate an inverted U shaped relationship with age and IPV. Women aged ≥35 as well as younger women aged 15-24 were less likely to experience violence compared to women aged 25-34. The protective effects of urban residence found in this study concur with

Antai's findings on IPV among women in Nigeria.[4] Urban and rural communities may differ socio-culturally in SSA, with more traditional gender norms of male dominance being upheld in rural areas. The higher prevalence of IPV in rural areas may be an expression of comparatively greater gender-power imbalance in these settings.[35]

Among ever-partnered women as well as currently partnered women who earned cash, women living with a partner compared to married women were significantly more likely to experience IPV. In contrast, findings from a cohort study in Uganda[5] found that women who were in a relationship with a boyfriend had lower odds of IPV compared to married women. However, it is unknown if these relationships involved cohabitation. While cohabitation is a potential risk factor for IPV, it has received limited attention and mixed results in the literature from SSA.

In conclusion, women who exceed their partner's educational and earning status may be transgressing conservative gender roles and challenging norms of male privilege and control. As hypothesized, exceeding the educational and earning status of a male partner does increase the risk of IPV for women in Rwanda. Other factors such as rural residence, being aged between 25-34, and living with a partner may also be important to consider for targeting IPV prevention and response interventions.

Strengths and limitations

The findings of this study should be considered within the context of its limitations. Measures of IPV are based on self-reported data, and therefore susceptible to underreporting. The sub-analysis relies on a subset of women who provided information on their earning relative to their partner's earning; findings on the risk of earning more

than your partner are only generalizable to employed women who earn cash. A strength of this study is that it uses a nationally representative sample, making findings from the model on relative education applicable to ever-partnered women of reproductive age in Rwanda. Also, the standard measures of IPV followed by the DHS and used in this study make findings on IPV comparable to a wide range of studies using the same measures.

Program and Policy Implications

As more girls access education and women access paid employment, distributions of power and resources within relationships will continue to shift, challenging entrenched gender norms. To prevent an unintended backlash arising from improvements in women's status, programs that aim to increase educational attainment among girls and improve economic opportunities for women must also engage boys and men to foster gender-equitable attitudes, norms and practices. More research is needed to understand the relative importance of status inequality in relationships in predicting IPV in the SSA context, to better inform empowerment strategies for women and girls.

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